

**FIRE PROTECTION PLAN
FOR
DYKE LOT SPLIT
TPM 20899
ER 04-14-049**

PREPARED FOR:

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1.0 INTRODUCTION

The proposed project is a minor subdivision and residential development of 8.33 gross acres into two parcels that are 2.45 and 5.88 gross acres in size. The proposed project also includes biological open space easements totaling 3.85 acres. The project is located in the Community of Crest, in East San Diego County, south of Interstate 8 (Figures 1 & 2).

The purpose of this Fire Protection Plan (FPP) is to meet the requirements of the East County Fire Protection District Fire Marshal regarding fire safety in the Urban/Wildland Interface for the subdivision TPM 20899. Article 86 of the 2001 edition of the California Fire Code indicates that a Fire Protection Plan shall be required for all new development within the Urban/Wildland Interface. The project is mapped within the State Responsibility Area (Figure 3).

The following Fire Protection Plan addresses water supply, access, building ignition and fire resistance, fire protection systems and equipment, defensible space and vegetation management in accordance with the requirements of Article 86. When developing mitigation measures the location, topography, geology, flammable vegetation and climate were taken into consideration.

2.0 WATER SUPPLY

All components must meet the approval of the East County Fire Protection District and County Fire Marshal. Design of the water supply, type and location of the fire hydrants must be submitted to the Fire Marshall for approval prior to the recordation of the map.

1. The hydrant must meet the County fire flow requirement of 2,500 gallons per minute.
2. Location of the hydrant shall be shown on the plot plan when submitted to the fire department.
3. Design of the water supply shall be submitted to the East County Fire Protection District for approval prior to the issuance of a building permit for any parcel created by this subdivision.
4. Water supply system and hydrants shall be installed and tested prior to bringing any combustible building materials on-site.

Furthermore, in conformance with Section 903.4.2.2.3 of the CFC, all fire hydrants shall be of bronze construction, including all internal parts except seats. Alternate materials may be used if approved by the East County Fire Protection District Fire Marshal. The number and size of fire hydrant outlets shall be identified by the Fire Marshal as discussed in item 3 above.



Figure 1
Regional Location Map



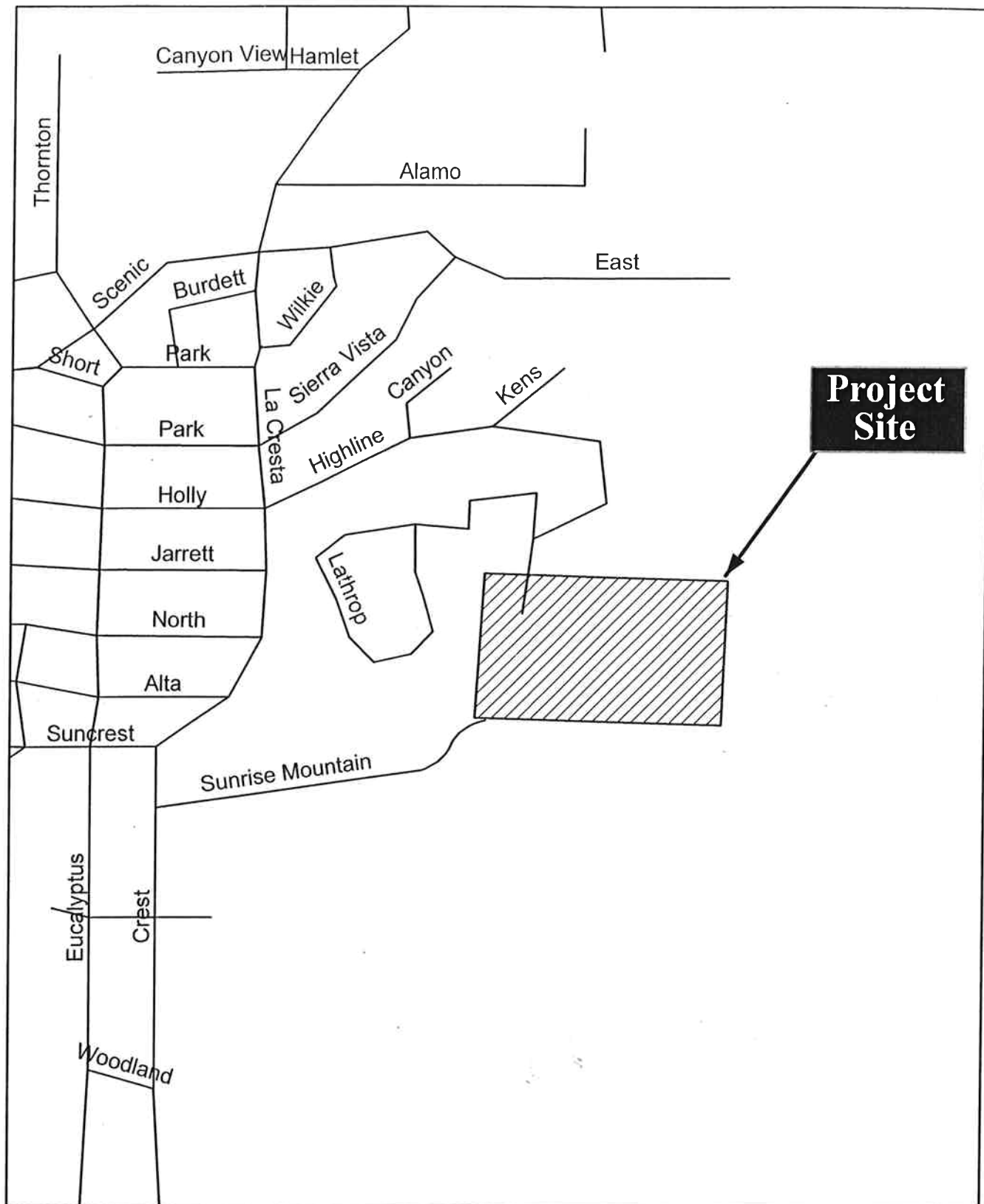
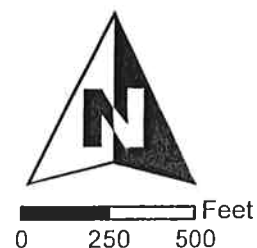
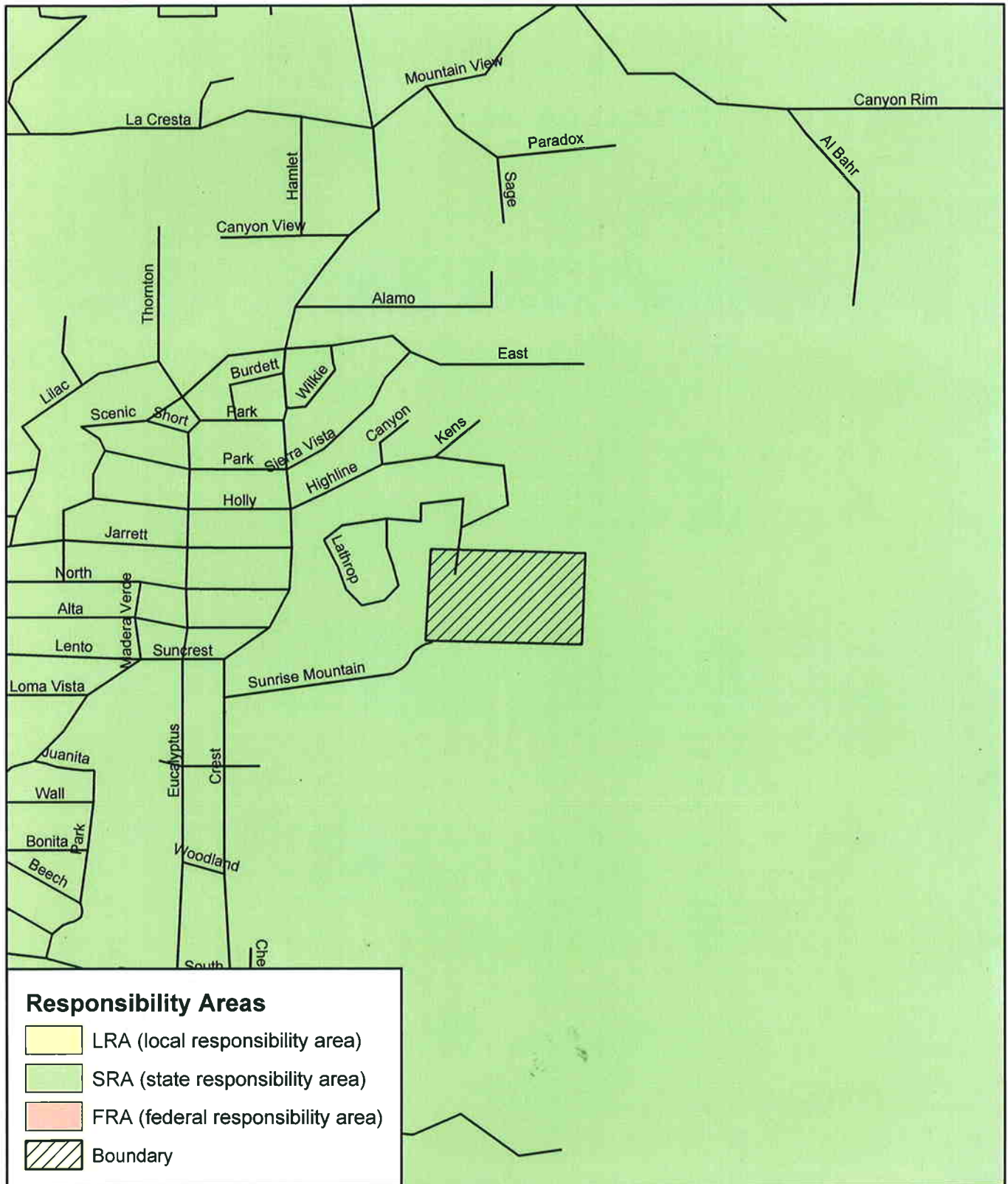


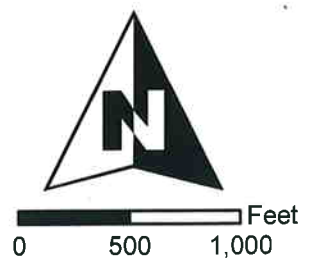
Figure 2
Vicinity Map
Dyke Lot Split





Source: <http://frap.cdf.ca.gov/>

Figure 3
State Responsibility Area Map
Dyke Lot Split



3.0 ACCESS

Fire apparatus access roads are required in conformance with Section 902.2 of the Consolidated Fire Code. The fire apparatus access road(s) shall meet the following specifications:

1. Individual driveways serving as a fire apparatus access road shall be at least 16 feet wide with a vertical clearance of not less than 13 feet 6 inches.
2. Private driveways greater than 150' in length shall be provided with a means of turning the fire apparatus around and approved by the East County Fire Marshal. Note: Turn around must not be used for parking of vehicles. Turn around must be kept clear of all obstructions to fire department access.
3. Access roadways and driveways shall not exceed 20% slope. Fire apparatus access roadways exceeding 15% shall not be permitted without mitigation. Minimal mitigation shall be the installation of a surface of Portland cement concrete (PCC), with a heavy-broom finish, perpendicular to the direction of travel to enhance traction.
4. Addresses shall be placed at appropriate locations and be plainly visible and legible from the street fronting the property from either direction of approach. Said numbers shall contrast with their background and shall meet the following minimum standards as to size: 4" high with a 3/8" stroke.
5. All roadways shall have a minimum of a 30 foot radius at curb line where they bend or intersect

4.0 FIRE RESISTANCE AND FIRE PROTECTION SYSTEMS

County Fire and Building Codes prescribe enhanced fire-resistive construction elements in the wildland urban interface because of the potential for wildfire ignition of the structures based on terrain, vegetation and weather. Residential fire sprinkler systems are required for interior protection of all structures in accordance with the specifications of the National Fire Protection Association Standard 13D, to the satisfaction of the East County Fire Protection District. This condition must be complied with prior to the issuance of an occupancy permit and only on the particular parcel for which an occupancy permit is sought. All structures shall comply with the enhanced fire resistive features per the San Diego County Building Code.

5.0 ZONES OF IRRIGATION AND BRUSH MANAGEMENT

Several factors were taken into consideration when developing the fuel modification zones and management of the zones including topography, degree of exposure, lot size, and proximity to biological open space. In addition, the plan was developed with watershed protection and suitability of proposed plant species with regard to adjacency to biological open space as a consideration. Fire modeling was performed using BehavePlus 3.0 for the worst case scenario which is a Santa Ana weather condition. The modeling for all of the parcels used a 40 mile an hour wind coming from 0, 45 and 90 degrees from north. In addition, the fuel moisture scenario used was D1L1, a very low moisture

scenario which would be most applicable to the time of year Santa Ana's typically occur. Modeling for the proposed parcels was performed using a chaparral fuel model. The resulting flame length averaged 69.5 feet. A copy of the modeling is included as Appendix A. The majority of the project site falls within a fire threat ranking of moderate to very high (Figure 4). The proposed fuel management zone is 150 feet (Figure 5). The increased fuel management zone to the east is a result of a greater potential for fires with greater flame length from the eastern direction based on Santa Ana weather conditions.

Brush Management

A 100 foot fuel modification zone A will be provided surrounding the proposed pad. A 100 foot limited building zone will be provided adjacent to the proposed open space easement that shall have fuel management as described below to reduce and maintain fuel loads. The fuel modification zone and limited building zones described above overlap in some areas of the property as shown in Figure 5. The fuel modification zone extends onto adjacent property to the north. This area is developed and already landscaped. Therefore no additional fire clearing off-site would be required.

The fuel management zone are divided into Zones A and B which are depicted in Figure 5 and will be maintained as described below.

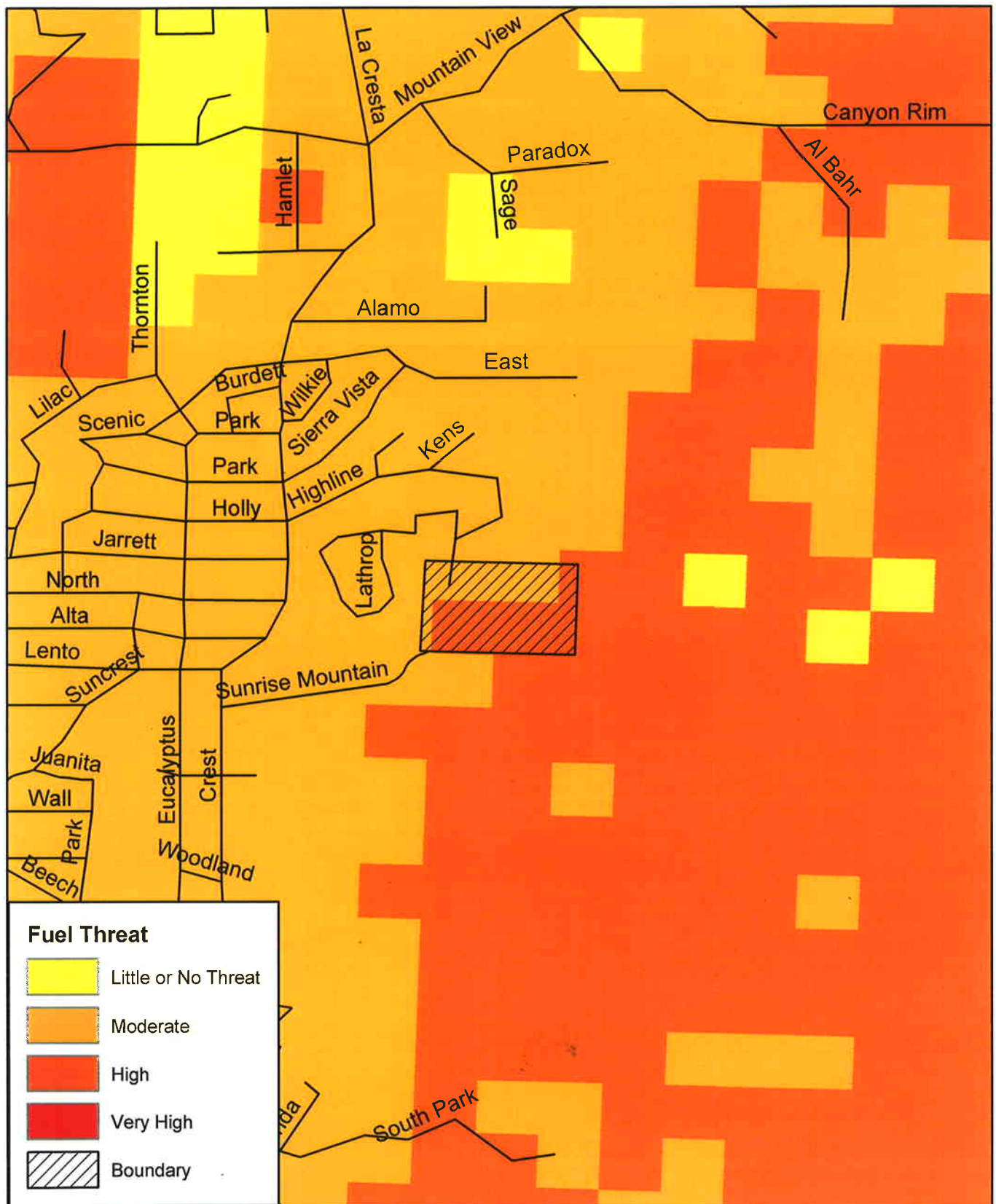
Zone A

Zone A will consist of landscape plantings that are maintained and irrigated so that they shall not create fire hazards near structures. The following measures will reduce fire hazards near buildings:

- Highly flammable plants adjacent to structures are prohibited.
- Except for prostrate varieties, acacias, cedars, cypress, eucalyptus, juniper, pines, rosemary and California pepper shall not be planted.
- Plants will only be selected from the County of San Diego "Acceptable Plants for a Defensible Space in Fire Prone Areas" included as Appendix B or other as approved by the Fire Marshal.
- No plants on the undesirable list included in Appendix C shall be planted.
- Trees shall not be planted closer to structures than the distance equal to the tree's mature canopy plus 10 feet. Tree canopies shall be separated by 20 feet.

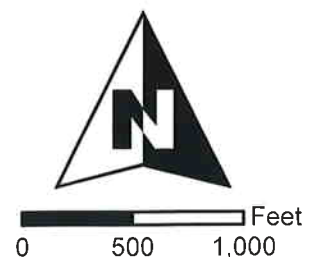
Irrigation

Permanent irrigation shall be provided to ornamental plantings. Irrigation will conform to any applicable County Landscape Requirements.







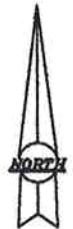
Source: <http://frap.cdf.ca.gov/>

Figure 4
Fire Threat Map
Dyke Lot Split

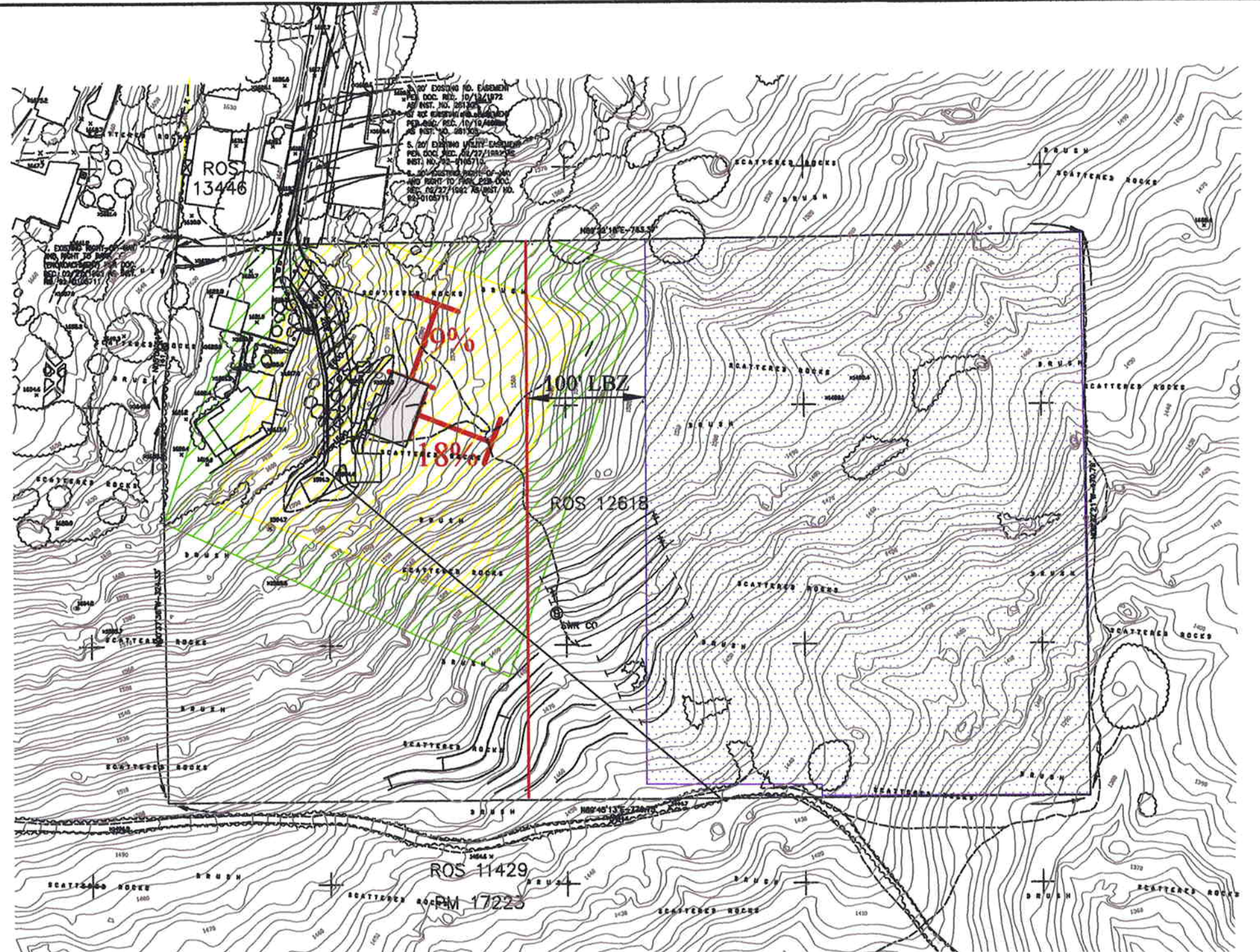


Legend:

-  Zone A - 100' from house pad
Maintained and Irrigated Landscape
-  Zone C - Area between FMZ and Open Space -
May be maintained or left natural
-  Proposed Open Space
-  100' Limited Building Zone



Scale 1"=100'



Maintenance

Maintenance within this zone shall be performed year-round and include the following tasks:

- Prune and thin trees (Figures 6 and 7) around structures to decrease fuel volume, retain succulent growth and to provide adequate clearance between structures and plants.
- Tree branches overhanging roofs shall be removed.
- Trash and combustible debris shall be cleared from around structures, and removed from roofs and rain gutters.
- Irrigation systems will be maintained to ensure that they function properly and plantings are watered sufficiently to maintain succulent growth.

Thinning and Pruning

Figure 6, below illustrates how native trees retained and planted trees shall have a minimum canopy separation of 20 feet.

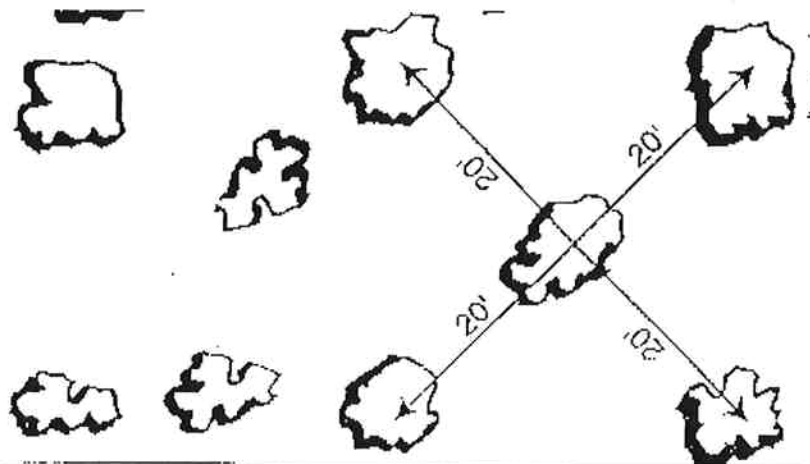


Figure 6. Thinned Trees

Pruning will further reduce the fuel load. Pruning shall be accomplished in the following manner:

- Individual trees and shrubs will be pruned to remove dead, dying and excessively twiggy growth. Figure 7, below illustrates the desired result of pruning.



Figure 7. Pruning of Landscape Shrubs and Retained Trees

- Trees and larger tree form shrubs shall be pruned to provide clearance of three times the height of the understory plant material or six feet whichever is higher. Figure 8, below illustrates this requirement.

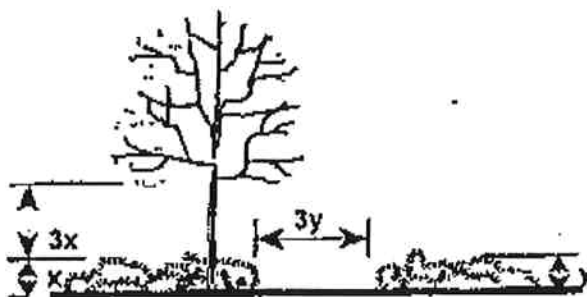


Figure 8. Pruning Trees and Tree Form Shrubs for Brush Management

Zone B

Zone B extends between the fuel management zone and open space. The property owner may leave this area in its native condition or maintain it. Zone B is depicted on Figure 5.

6.0 RESPONSIBILITIES

The following section identifies the responsible parties for conformance and implementation of this plan.

Conformance

The ultimate responsibility for conformance with the fire protection plan lies with the landowner as identified on the County Tax Assessor records. Covenants shall be required for the maintenance of the fuel modification zones.

Conformance Approval

Conformance approval is under the jurisdiction of the East County Fire Protection District Fire Marshal.

APPENDIX A
FUEL MODELING

Modules: SURFACE

Description

Dyke Chaparral

Fuel/Vegetation, Surface/Understory

Fuel Model 4

Fuel/Vegetation, Overstory

Canopy Cover % 0

Canopy Height ft

Crown Ratio

Fuel Moisture

Moisture Scenario d111

Weather

20-ft Wind Speed mi/h 40

Wind Direction (from north) deg 0, 45, 90

Terrain

Slope Steepness % 18

Aspect (from north) deg 90

Run Option Notes

Calculations are only for the direction of maximum spread [SURFACE].

Fireline intensity, flame length, and spread distance are always
for the direction of the spread calculations [SURFACE].

Wind and spread directions are degrees clockwise from north [SURFACE].

Wind direction is the direction from which the wind is blowing [SURFACE].

Output Variables

Surface Rate of Spread (maximum) (ch/h) [SURFACE]

Flame Length (ft) [SURFACE]

Direction of Maximum Spread (from north) (deg) [SURFACE]

Wind/Slope/Spread Direction Diagram [SURFACE]

Fire Characteristics Chart [SURFACE]

(continued on next page)

Input Worksheet (continued)

Notes

The results of this run are using the fuel model for chaparral, a Santa Ana wind condition of 40 mph, with a calculated wind adjustment factor and a very low fuel moisture scenario. The chaparral was considered to have a 0' canopy with 0% canopy coverage. The aspect from north is 90 degrees and the slope is assumed to be 18%.

Dyke Chaparral

Wind Dir	ROS	Flame	Direction
(north)	(max)	Length	Max ROS
deg	ch/h	ft	deg
0	978.3	69.4	180
45	982.7	69.5	225
90	984.5	69.6	270

APPENDIX B

ACCEPTABLE PLANTS IN FIRE PRONE AREAS

SUGGESTED PLANT LIST FOR A DEFENSIBLE SPACE

<u>BOTANICAL NAME</u>	<u>COMMON NAME</u>	<u>Climate Zone</u>
TREES		
Acer		
platanoides	Norway Maple	M
rubrum	Red Maple	M
saccharinum	Silver Maple	M
saccarum	Sugar Maple	M
macrophyllum	Big Leaf Maple	C/ (R)
Alnus rhombifolia	White Alder	C/I/M (R)
Arbutus		
unedo	Strawberry Tree	All zones
Archontophoenix		
cunninghamiana	King Palm	C
Arctostaphylos spp.**	Manzanita	C/I/D
Brahea		
armata	Blue Hesper Palm	C/D
edulis	Guadalupe Palm	C/D
Ceratonia siliqua	Carob	C/I/D
Cercidium floridum	Blue Palo Verde	D
Cercis occidentalis**	Western Redbud	C/I/M
Cornus		
nuttallii	Mountain Dogwood	I/M
stolonifera	Redtwig Dogwood	I/M
Eriobotrya		C/I/D
japonica	Loquat	C
Erythrina caffra	Kaffirboom Coral Tree	I/M
Ginkgo biloba "Fairmount"	Fairmount Maidenhair Tree	I/D/M
Gleditsia triacanthos	Honey Locust	
Juglans		I
californica	California Walnut	C/I
hindsii	California Black Walnut	I/D/M
Lagerstroemia indica	Crape Myrtle	I
Ligustrum lucidum	Glossy Privet	C/I/M
Liquidambar styraciflua	Sweet Gum	I
Liriodendron tulipifera	Tulip Tree	
Lyonothamnus floribundus		C
ssp. Asplenifolius	Fernleaf Catalina Ironwood	C/I/D
Melaleuca spp.	Melaleuca	C/I
Parkinsonia aculeate	Mexican Palo Verde	
Pistacia		
chinensis	Chinese Pistache	
	Pistachio Nut	C/I/D

SHRUBS

Agave	Century Plant	D
americana	Century Plant	D
deserti	Shawis Century Plant	D
shawii**		
Amorpha fruticosa**	False Indigobush	I
Arbutus		
menziesii**	Madrone	C/I
Arctostaphylos spp.**	Manzanita	C/I/D
Atriplex**		
canescens	Hoary Saltbush	I
lentiformis	Quail Saltbush	D
Baccharis**		
glutinosa	Mule Fat	C/I
pilularis	Coyote Bush	C/I/D
Carissa grandiflora	Natal Plum	C/I
Ceanothus spp.**	California Lilac	C/I/M
Cistus spp.	Rockrose	C/I/D
Cneoridium dumosum**	Bushrue	C
Comarostaphylis**		
diversifolia	Summer Holly	C
Convolvulus cneorum	Bush Morning Glory	C/I/M
Dalea		
orcuttii	Orcutt's Delea	D
spinosa**	Smoke Tree	I/D
Elaeagnus		
pungens	Silverberry	C/I/M
Encelia**		
californica	Coast Sunflower	C/I
farinose	White Brittlebush	D/I
Eriobotrya		
deflexa	Bronze Loquat	C/I
Eriophyllum		
confertiflorum**	Golden Yarrow	C/I
staechadifolium	Lizard Tail	C
Escallonia spp.	Escallonia	C/I
Feijoa sellowiana	Pineapple Guava	C/I/D
Fouquieria splendens	Ocotillo	D
Fremontodendron**		
californicum	Flannelbush	I/M
mexicanum	Southern Flannelbush	I
Galvezia		
juncea	Baja Bush-Snapdragon	C
speciosa	Island Bush-Snapdragon	C
Garrya		
elliptica	Coast Silktassel	C/I
flavescens**	Ashy Silktassel	I/M

VINES

Antigonon leptopus	San Miguel Coral Vine	C/I
Distictis buccinatoria	Blood-Red Trumpet Vine	C/I/D
Keckiella cordifolia**	Heart-Leaved Penstemon	C/I
Lonicera		
japonica 'Halliana'	Hall's Honeysuckle	All Zones
subspicata**	Chaparral Honeysuckle	C/I
Solanum		
jasminoides	Potato Vine	C/I/D

PERENNIALS

Coreopsis		
gigantea	Giant Coreopsis	C
grandiflora	Coreopsis	All Zones
maritime	Sea Dahlia	C
verticillata	Coreopsis	C/I
Heuchera maxima	Island Coral Bells	C/I
Iris douglasiana**	Douglas Iris	C/M
Iva hayesiana**	Poverty Weed	C/I
Kniphofia uvaria	Red-Hot Poker	C/M
Lavandula spp.	Lavender	All Zones
Limonium californicum		
var. mexicanum	Coastal Statice	C
perezii	Sea Lavender	C/I
Oenothera spp.	Primrose	C/I/M
Penstemon spp.**	Penstemon	C/I/D
Satureja douglasii	Yerba Buena	C/I
Sisyrinchium		
bellum	Blue-Eyed Grass	C/I
californicum	Golden-Eyed Grass	C
Solanum		
xanthii	Purple Nightshade	C/I
Zauschneria**		
californica	California Fuschia	C/I
cana	Hoary California Fuschia	C/I
'Catalina'	Catalina Fuschia	C/I

ANNUALS

Lupinus spp.**	Lupine	C/I/M
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Heteromeles arbutifolia**	Ashy Silktassel	I/M
Lantana spp.	Toyon	C/I/M
Lotus scoparius	Lantana	C/I/D
Mahonia spp.	Deerweed	C/I
	Barberry	C/I/M
Malacothamnus clementinus		
	San Clemente Island Bush Mallow	C
fasciculatus**		
	Mesa Bushmallow	C/I
Melaleuca spp.		
Mimulus spp.**	Melaleuca	C/I/D
Nolina	Monkeyflower	C/I (R)
parryi		
parryi ssp. wolfii	Parry's Nolina	I
Photinia spp.	Wolf's Bear Grass	D
Pittosporum	Photinia	All Zones
crassifolium		
rhombofolium		C/I/I
tobira 'Wheeleri'	Queensland Pittosporum	C/I
undulatum	Wheeler's Dwarf	C/I/D
viridiflorum	Victorian Box	C/I
Plumbago auriculata	Cape Pittosporum	C/I
Prunus	Cape Plumbago	C/I/D
caroliniana		
ilicifolia**	Carolina Laurel Cherry	C
lyonii**	Hollyleaf Cherry	C
Punica granatum	Catalina Cherry	C
Pyracantha spp.	Pomegranate	C/I/D
Quercus	Firethorn	All Zones
dumosa**		
Rhamus	Scrub Oak	C/I
alaternus		
californica**	Italian Blackthorn	C/I
Rhaphiolepis spp.	Coffeeberry	C/I/M
Rhus	Rhaphiolepis	C/I/D
integrifolia**		
laurina	Lemonade Berry	C/I
lentii	Laurel Sumac	C/I
ovata**	Pink-Flowering Sumac	C/D
trilobata**	Sugarbush	I/M
Ribes	squawbush	I
viburnifolium		
speciosum**	Evergreen Currant	C/I
Romneya coulteri	Fuschia-Flowering Gooseberry	C/I/D
Rosa	Matilija Poppy	I
californica**		
minutifolia		

Salvia spp.**	California Wild Rose	C/I
Sambucus spp.**	Baja California Wild Rose	C/I
Symphoricarpos mollis**	Sage	All Zones
Syringa vulgaris	Elderberry	C/I/M
Tecomaria capensis	Creeping Snowberry	C/I
Teucrium fruticans	Lilac	M
Toxicodendron**	Cape Honeysuckle	C/I/D
diversilobum	Bush Germander	C/I
Verbena		
lilacina	Poison Oak	I/M
Xylosma congestum		
Yucca**	Lilac Verbena	C
schidigera	Shiny Xylosma	C/I
whipplei		
	Mojave Yucca	D
	Foothill Yucca	I

GROUNDCOVERS

Achillea**	Yarrow	All Zones
Aptenia cordifolia	Apteria	C
Arctostaphylos spp.**	Manzanita	C/I/D
Baccharis**		
pilularis	Coyote Bush	C/I/D
Ceanothus spp.**	California Lilac	C/I/M
Cerastium tomentosum	Snow-in-Summer	All Zones
Coprosma kirkii	Creeping Coprosma	C/I/D
Cotoneaster spp.	Redberry	All Zones
Drosanthemum hispidum	Rosea Ice Plant	C/I
Dudleya		
brittonii	Brittonis Chalk Dudleya	C
pulverulenta**	Chalk Dudleya	C/I
virens	Island Live Fore-ever	C
Eschscholzia californica**	California Poppy	All Zones
Euonymus fortunei		
'Carrierei'	Glossy Winter Creeper	M
'Coloratus'	Purple-Leaf Winter Creeper	M
Ferocactus viridescens**	Coast Barrel Cactus	C
Gaillardia grandiflora	Blanket Flower	All Zones
Gazania spp.	Gazania	C/I
Helianthemum spp.**	Sunrose	All Zones
Lantana spp.	Lantana	C/I/D
Lasthenia		
californica**	Common Goldfields	I
glabrata	Coastal Goldfields	C
Lupinus spp.**	Lupine	C/I/M
Myoporum spp.	Myoporum	C/I
Pyracantha spp.	Firethorn	All zones
Rosmarinus officinalis	Rosemary	C/I/D
Santolina		
chamaecyparissus	Lavender Cotton	All Zones
virens	Santolina	All Zones
Trifolium frageriferum	O'Connor's Legume	C/I
Verbena		
rigida	Verbena	All Zones
Viguiera laciniata**	San Diego Sunflower	C/I
Vinca		
minor	Dwarf Periwinkle	M

VINES

Antigonon leptopus	San Miguel Coral Vine	C/I
Distictis buccinatoria	Blood-Red Trumpet Vine	C/I/D
Keckiella cordifolia**	Heart-Leaved Penstemon	C/I
Lonicera		
japonica 'Halliana'	Hall's Honeysuckle	All Zones
subspicata**	Chaparral Honeysuckle	C/I
Solanum		
jasminoides	Potato Vine	C/I/D

PERENNIALS

Coreopsis		
gigantea	Giant Coreopsis	C
grandiflora	Coreopsis	All Zones
maritima	Sea Dahlia	C
verticillata	Coreopsis	C/I
Heuchera maxima	Island Coral Bells	C/I
Iris douglasiana**	Douglas Iris	C/M
Iva hayesiana**	Poverty Weed	C/I
Kniphofia uvaria	Red-Hot Poker	C/M
Lavandula spp.	Lavender	All Zones
Limonium californicum		
var. mexicanum	Coastal Statice	C
perezii	Sea Lavender	C/I
Oenothera spp.	Primrose	C/I/M
Penstemon spp.**	Penstemon	C/I/D
Satureja douglasii	Yerba Buena	C/I
Sisyrinchium		
bellum	Blue-Eyed Grass	C/I
californicum	Golden-Eyed Grass	C
Solanum		
xanthii	Purple Nightshade	C/I
Zauschneria**		
californica	California Fuschia	C/I
cana	Hoary California Fuschia	C/I
'Catalina'	Catalina Fuschia	C/I

ANNUALS

Lupinus spp.**	Lupine	C/I/M
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APPENDIX C
UNDESIRABLE PLANT LIST

UNDESIRABLE PLANT LIST

The following species are highly flammable and should be avoided when planting within the first 50 feet adjacent to a structure. The plants listed below are more susceptible to burning, due to rough or peeling bark, production of large amounts of litter, vegetation that contains oils, resin, wax, or pitch, large amounts of dead material in the plant, or plantings with a high dead to live fuel ratio. Many of these species, if existing on the property and adequately maintained (pruning, thinning, irrigation, litter removal, and weeding), may remain as long as the potential for spreading a fire has been reduced or eliminated.

<u>BOTANICAL NAME</u>	<u>COMMON NAME</u>
<u>Abies species</u>	Fir Trees
<u>Acacia species</u>	Acacia (trees, shrubs, groundcovers)
<u>Adenostoma sparsifolium**</u>	Red Shanks
<u>Adenostoma fasciculatum**</u>	Chamise
<u>Agonis juniperina</u>	Juniper Myrtle
<u>Araucaria species</u>	Monkey Puzzle, Norfolk Island Pine
<u>Artemesia californica**</u>	California Sagebrush
<u>Bambusa species</u>	Bamboo
<u>Cedrus species</u>	Cedar
<u>Chamaecyparis species</u>	False Cypress
<u>Coprosma pumila</u>	Prostrate Coprosma
<u>Cryptomeria japonica</u>	Japanese Cryptomeria
<u>Cupressocyparis leylandii</u>	Leylandii Cypress
<u>Cupressus forbesii**</u>	Tecate Cypress
<u>Cupressus glabra</u>	Arizona Cypress
<u>Cupressus sempervirens</u>	Italian Cypress
<u>Dodonea viscosa</u>	Hopseed Bush
<u>Eriogonum fasciculatum**</u>	Common Buckwheat
<u>Eucalyptus species</u>	Eucalyptus
<u>Heterotheca grandiflora**</u>	Telegraph Plant
<u>Juniperus species</u>	Junipers
<u>Larix species</u>	Larch
<u>Lonicera japonica</u>	Japanese Honeysuckle
<u>Miscanthus species</u>	Eulalia Grass
<u>Muehlenbergia species**</u>	Deer Grass
<u>Palmae species</u>	Palms
<u>Picea species</u>	Spruce Trees
<u>Pickeringia Montana**</u>	Chaparral Pea
<u>Pinus species</u>	Pines
<u>Podocarpus species</u>	Fern Pine
<u>Pseudotsuga menziesii</u>	Douglas Fir
<u>Rosmarinus species</u>	Rosemary
<u>Salvia mellifera**</u>	Black Sage
<u>Taxodium species</u>	Cypress
<u>Taxus species</u>	Yew
<u>Thuja species</u>	Arborvitae
<u>Tsuga species</u>	Hemlock
<u>Urtica urens**</u>	Burning Nettle

** San Diego County native species

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APPENDIX D

CalEPPC LIST

Wildland Pest Plants of Greatest Ecological Concern in California

October, 1999



The CalEPPC list is based on information submitted by our members and by land managers, botanists and researchers throughout the state, and on published sources. The list highlights non-native plants that are serious problems **in wildlands** (natural areas that support native ecosystems, including national, state and local parks, ecological reserves, wildlife areas, national forests, BLM lands, etc.).

List categories include:

List A: Most Invasive Wildland Pest Plants; documented as aggressive invaders that displace natives and disrupt natural habitats. Includes two sub-lists; List A-1: Widespread pests that are invasive in more than 3 Jepson regions (see page 3), and List A-2: Regional pests invasive in 3 or fewer Jepson regions.

List B: Wildland Pest Plants of Lesser Invasiveness; invasive pest plants that spread less rapidly and cause a lesser degree of habitat disruption; may be widespread or regional.

Red Alert: Pest plants with potential to spread explosively; infestations currently small or localized. If found, alert CalEPPC, County Agricultural Commissioner or California Department of Food and Agriculture.

Need More Information: Plants for which current information does not adequately describe nature of threat to wildlands, distribution or invasiveness. Further information is requested from knowledgeable observers.

Annual Grasses: New in this edition; a preliminary list of annual grasses, abundant and widespread in California, that pose significant threats to wildlands. Information is requested to support further definition of this category in next List edition.

Considered But Not Listed: Plants that, after review of status, do not appear to pose a significant threat to wildlands.

Plants that fall into the following categories are not included in the List:

- Plants found mainly or solely in disturbed areas, such as roadsides and agricultural fields.
- Plants that are established only sparingly, with minimal impact on natural habitats.

1999 List

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The CalEPPC list is updated regularly. Please use the form provided to send comments, suggestions or new information to: **Peter Warner, 555 Magnolia Avenue, Petaluma, CA, 94952-2080**, or via email at **peterjwarner@earthlink.net**

Thanks to all those who submitted comments for the 1999 list.

Latin Name ¹	Common Name	Habitats of Concern and Other Comments	Distribution ²
<i>Ammophila arenaria</i>	European beach grass	Coastal dunes	SCo,CCo,NCo
<i>Arundo donax</i>	giant reed, arundo	Riparian areas	cSNF,CCo,SCo,SnGb,D,GV
<i>Bromus tectorum</i>	cheat grass, downy brome	Sagebrush, pinyon-juniper, other desert communities; increases fire frequency	GB,D
<i>Carpobrotus edulis</i>	iceplant, sea fig	Many coastal communities, esp. dunes	SCo,CCo,NCo,SnFrB
<i>Centaurea solstitialis</i> ^C	yellow starthistle	Grasslands	CA-FP (uncommon in SoCal)
<i>Cortaderia jubata</i>	Andean pampas grass, jubatagrass	Horticultural; many coastal habitats, esp. disturbed or exposed sites incl. logged areas	NCo,NCoRO,SnFrB,CCo,WTR,SCo
<i>Cortaderia selloana</i>	pampas grass	Horticultural; coastal dunes, coastal scrub, Monterey pine forest, riparian, grasslands; wetlands in ScV; also on serpentine	SnFrB,SCo,CCo,ScV
<i>Cynara cardunculus</i> ^B	artichoke thistle	Coastal grasslands	CA-FP, esp. CCo,SCo
<i>Cytisus scoparius</i> ^C	Scotch broom	Horticultural; coastal scrub, oak woodlands, Sierra foothills	NW,CaRF,SNF,GV,SCo,CW
<i>Eucalyptus globulus</i>	Tasmanian blue gum	Riparian areas, grasslands, moist slopes	NCoRO,GV,SnFrB,CCo,SCoRO,SCo,nChl
<i>Foeniculum vulgare</i>	wild fennel	Grasslands; esp. SoCal, Channel Is.; the cultivated garden herb is not invasive	CA-FP
<i>Genista monspessulana</i> ^C	French broom	Horticultural; coastal scrub, oak woodlands, grasslands	NCoRO,NCoRI,SnFrB,CCo,SCoRO,sChl,WTR,PR
<i>Lepidium latifolium</i> ^B	perennial pepperweed, tall whitetop	Coastal, inland marshes, riparian areas, wetlands, grasslands; potential to invade montane wetlands	CA (except KR,D)
<i>Myriophyllum spicatum</i>	Eurasian watermilfoil	Horticultural; lakes, ponds, streams, aquaculture	SnFrB,SnJV,SNH(?); prob. CA
<i>Pennisetum setaceum</i>	fountain grass	Horticultural; grasslands, dunes, desert canyons; roadsides	Dellaic GV,CCo,SCo,SnFrB
<i>Rubus discolor</i>	Himalayan blackberry	Riparian areas, marshes, oak woodlands	CA-FP
<i>Senecio mikanioides</i> (= <i>Delairea odorata</i>)	Cape ivy, German ivy	Coastal, riparian areas, also SoCal (south side San Gabriel Mtns.)	SCo,CCo,NCo,SnFrB,SW
<i>Taeniatherum caput-medusae</i> ^C	medusa-head	Grasslands, particularly alkaline and poorly drained areas	NCoR,CaR,SNF,GV,SCo
<i>Tamarix chinensis</i> , <i>T. gallica</i> , <i>T. parviflora</i> & <i>T. ramosissima</i>	tamarisk, salt cedar	Desert washes, riparian areas, seeps and springs	SCo,D,SnFrB,GV,sNCoR,sSNF,Teh,SCoRI,SNE,WTR
<i>Ulex europaeus</i> ^B	gorse	North, central coastal scrub, grasslands	NCo,NCoRO,CaRF,n&cSNF,SnFrB,CCo

¹Noxious Weed Ratings

- F: Federal Noxious Weed, as designated by the USDA; targeted for federally-funded prevention, eradication or containment efforts.
- A: CA Dept. of Food & Agriculture, on "A" list of Noxious Weeds; agency policies call for eradication, containment or entry refusal.
- B: CA Dept. of Food & Agriculture, on "B" list of Noxious Weeds; includes species that are more widespread, and therefore more difficult to contain; agency allows county Agricultural Commissioners to decide if local eradication or containment is warranted.
- C: CA Dept. of Food & Agriculture, on "C" list of Noxious Weeds; includes weeds that are so widespread that the agency does not endorse state or county-funded eradication or containment efforts except in nurseries or seed lots.
- Q: CA Dept. of Food & Agriculture's designation for temporary "A" rating pending determination of a permanent rating.

For most species nomenclature follows *The Jepson Manual: Higher Plants of California* (Hickman, J., Ed., 1993).

Latin Name ¹	Common Name	Habitats of Concern and Other Comments	Distribution ²
<i>Ailanthus altissima</i>	tree of heaven	Riparian areas, grasslands, oak woodlands, esp. GV, SCo	CA FP
<i>Atriplex semibaccata</i>	Australian saltbush	SoCal, coastal grasslands, scrub, "high marsh" of coastal salt marshes	CA (except CaR, c&sSN)
<i>Brassica tournefortii</i>	Moroccan or African mustard	Washes, alkaline flats, disturbed areas in Sonoran Desert	SW, D
<i>Bromus madritensis</i> ssp. <i>rubens</i>	red brome	Widespread; contributing to SoCal scrub, desert scrub type conversions; increases fire frequency	CA
<i>Cardaria draba</i> ⁴	white-top, hoary cress	Riparian areas, marshes of central coast; also ag. lands, disturbed areas	Problem only in CCo
<i>Conicosia pugioniformis</i>	narrow-leaved iceplant, roundleaf iceplant	Coastal dunes, sandy soils near coast; best documented in San Luis Obispo and Santa Barbara cos.	CCo
<i>Cotoneaster pannosus</i> , <i>C. lacteus</i>	cotoneaster	Horticultural; many coastal communities; esp. North Coast, Big Sur; related species also invasive	CCo, SnFrB, NW
<i>Cytisus striatus</i>	striated broom	Often confused with <i>C. scoparius</i> ; coastal scrub, grassland	SnFrB, CCo, SCo, PR
<i>Egeria densa</i>	Brazilian waterweed	Streams, ponds, sloughs, lakes; Sacramento-San Joaquin Delta	n&sSNF, SnJV, SnFrB, SnJt, SNE
<i>Ehrharta calycina</i>	veldt grass	Sandy soils, esp. dunes; rapidly spreading on central coast	CCo, SCoRO, WTR
<i>Eichhornia crassipes</i>	water hyacinth	Horticultural; established in natural waterways, esp. troublesome in Sacramento-San Joaquin Delta	GV, SnFrB, SCo, PR
<i>Elaeagnus angustifolia</i>	Russian olive	Horticultural; interior riparian areas	SnJV, SnFrB, SNE, DMoj
<i>Euphorbia esula</i> ⁴	leafy spurge	Rangelands in far no. CA, also reported from Los Angeles Co.	eKR, NCo, CaR, MP, SCo
<i>Ficus carica</i>	edible fig	Horticultural; Central Valley, foothill, South Coast and Channel Is. riparian woodlands	nSNF, GV, SnFrB, SCo
<i>Lupinus arboreus</i>	bush lupine	Native to SCo, CCo; invasive only in North Coast dunes	SCo, CCo, NCo
<i>Mentha pulegium</i>	pennyroyal	Santa Rosa Plain (Sonoma Co.) and Central Valley vernal pools; wetlands elsewhere	NW, GV, CW, SCo
<i>Myoporum laetum</i>	myoporum	Horticultural; coastal riparian areas in SCo	SCo, CCo
<i>Saponaria officinalis</i>	bouncing bet	Horticultural; meadows, riparian habitat in SNE, esp. Mono Basin	NW, CaRH, nSNF, SnFrB, SCoRO, SCo, PR, MP, SNE, GV
<i>Spartina alterniflora</i>	Atlantic or smooth cordgrass	S.F. Bay salt marshes; populations in Humboldt Bay believed extirpated	CCo (shores of S.F. Bay)

²Distribution by geographic subdivisions per the Jepson Manual

CA=California
CA-FP=California Floristic Province
CaR=Cascade Ranges
CaRF=Cascade Range Foothills
CCo=Central Coast
ChI=Channel Islands
CW=Central Western CA
D=Deserts
DMoj=Mojave Desert
DSon=Sonoran Desert
GB=Great Basin

GV=Great Valley
KR=Klamath Ranges
MP=Modoc Plateau
NCo=North Coast
NCoRI=Inner NCo Ranges
NCoRO=Outer NCo Ranges
NW=Northwestern CA
PR=Peninsular Ranges
SCo=South Coast
SCoRI=Inner SCo Ranges
SCoRO=Outer SCo Ranges

ScV=Sacramento Valley
SnJV=San Joaquin Valley
SN=Sierra Nevada
SNE=East of SN
SNF=SN Foothills
SNH=High SN
SnFrB=San Francisco Bay Area
SnGb=San Gabriel Mtns
SW=Southwestern CA
Teh=Tehachapi Mtns
WTR=Western Transverse Ranges

Latin Name ¹	Common Name	Habitats of Concern and Other Comments	Distribution ²
<i>Ageratina adenophora</i> ¹	eupatory	Horticultural; coastal canyons, coastal scrub, slopes, Marin to San Diego Co; San Gabriel Mtns.	CCo,SnFrB,SCo,SCoRO
<i>Bassia hyssopifolia</i>	bassia	Alkaline habitats	CA (except NW,SNH,I)
<i>Bellardia trixago</i>	bellardia	Grasslands, on serpentine, where a threat to rare natives	NCoRO,CCo,SnFrB
<i>Brassica nigra</i>	black mustard	Coastal communities, esp. fog-belt grasslands; disturbed areas	CA-FP
<i>Cardaria chalapensis</i> ^B	lens-podded white-top	Wetlands of Central Valley	CA
<i>Carduus pycnocephalus</i> ^C	Italian thistle	Grasslands, shrublands, oak woodlands	sNCo,sNCoR,SNF,CW,SCo,ScV
<i>Centaurea calcitrapa</i> ^B	purple starthistle	Grasslands	NW,sCaRF,SNF,GV,CW,SW
<i>Centaurea melitensis</i>	toalote, Malta starthistle	Widespread; sometimes misidentified as <i>C. solstitialis</i> ; perhaps a more serious invader than currently recognized	CA-FP,D
<i>Cirsium arvense</i> ^B	Canada thistle	Especially troublesome in riparian areas	CA-FP
<i>Cirsium vulgare</i>	bull thistle	Riparian areas, marshes, meadows	CA-FP,GB
<i>Conium maculatum</i>	poison hemlock	Mainly disturbed areas but may invade wildlands; known to poison wildlife; early expanding stage in many areas, esp. San Diego Co. riparian, oak understory	CA-FP
<i>Crataegus monogyna</i>	hawthorn	Horticultural; recent invader, colonizing healthy native forest around Crystal Springs reservoir on S.F. peninsula	SnFrB,CCo,NCo,NCoR
<i>Ehrharta erecta</i>	veldt grass	Wetlands, moist wildlands; common in urban areas; potential to spread rapidly in coastal, riparian, grassland habitats	SnFrB,CCo,SCo
<i>Erechtites glomerata</i> , <i>E. minima</i>	Australian fireweed	Coastal woodlands, scrub, NW forests, esp. redwoods	NCo,NCoRO,CCo,SnFrB,SCoRO
<i>Festuca arundinacea</i>	tall fescue	Horticultural (turf grass); coastal scrub, grasslands in NCo, CCo	CA-FP
<i>Hedera helix</i>	English ivy	Horticultural; invasive in coastal forests, riparian areas	CA-FP
<i>Holcus lanatus</i>	velvet grass	Coastal grasslands, wetlands in No. CA	CA exc. DSon
<i>Hypericum perforatum</i> ^C	Klamathweed, St. John's wort	Redwood forests, meadows, woodlands; invasion may occur due to lag in control by established biocontrol agents	NW,CaRF,n&cSN,ScV,CCo,SnFrB,PR
<i>Ilex aquifolium</i>	English holly	Horticultural; coastal forests, riparian areas	NCoRO,SnFrB,CCo
<i>Iris pseudacorus</i>	yellow water iris, yellow flag	Horticultural; riparian, wetland areas, esp. San Diego, Los Angeles cos.	SnFrB,CCo,sSnJV,SCo
<i>Leucanthemum vulgare</i>	ox-eye daisy	Horticultural; invades grassland, coastal scrub	KR,NCoRO,n&cSNH,SnFrB,WTR,PR
<i>Mesembryanthemum crystallinum</i>	crystalline iceplant	Coastal bluffs, dunes, scrub, grasslands; concentrates salt in soil	NCo,CCo,SCo,ChI
<i>Myriophyllum aquaticum</i>	parrot's feather	Horticultural; streams, lakes, ponds	NCo,CaRF,CW,SCo
<i>Olea europaea</i>	olive	Horticultural and agricultural; reported as invasive in riparian habitats in Santa Barbara, San Diego	NCoR,NCoRO,CCo,SnFrB,SCoRO,SCo
<i>Phalaris aquatica</i>	Harding grass	Coastal sites, esp. moist soils	NW,cSNF,CCo,SCo
<i>Potamogeton crispus</i>	curlyleaf pondweed	Scattered distribution in ponds, lakes, streams	NCoR,GV,CCo,SnFrB,SCo,ChI,SnGb,SnBr,DMoj
<i>Ricinus communis</i>	castor bean	SoCal coastal riparian habitats	GV,SCo,CCo
<i>Robinia pseudoacacia</i>	black locust	Horticultural; riparian areas, canyons; native to eastern U.S.	CA-FP,GB
<i>Schinus molle</i>	Peruvian pepper tree	Horticultural; invasive in riparian habitats in San Diego, Santa Cruz Is.	SNF,GV,CWSW,Teh

Latin Name ¹	Common Name	Habitats of Concern and Other Comments	Distribution ²
<i>Schinus terebinthifolius</i>	Brazilian pepper	Horticultural; riparian areas	sSCo
<i>Senecio jacobaea</i> ^B	tansy ragwort	Grasslands; biocontrol agents established	NCo,wKR,s&wCaR, nSNF, nScV,SW
<i>Spartium junceum</i>	Spanish broom	Coastal scrub, grassland, wetlands, oak woodland, NW forests, esp. redwoods; also roadcuts	NCoRO,ScV,SnFrB, SCoRO,SCo,sChI,WTR
<i>Verbascum thapsus</i>	woolly or common mullein	SNE meadows, sagebrush, pinyon-juniper woodlands; shores of Boggs Lake (Lake Co.)	CA
<i>Vinca major</i>	periwinkle	Horticultural; riparian, oak woodland, other coastal habitats	NCoRO,SnFrB, CCo, sSCoRO,SCo

Red Alert: Species with potential to spread explosively; introductions currently restricted

Latin Name ¹	Common Name	Habitats of Concern and Other Comments	Distribution ²
<i>Alhagi pseudalhagi</i> ^A	camel thorn	Noxious weed of arid areas; most infestations in California have been eradicated	GV,sSNE,D
<i>Arctotheca calendula</i> ^A	Capeweed	Seed-producing types are the problem; most are vegetative only	NCo,SnFrB,CCo
<i>Centaurea maculosa</i> ^A	spotted knapweed	Riparian, grassland, wet meadows, forest habitats; contact CA Food & Ag if new occurrences found	CaR,SN,nScV,nCW,MP, nSNE,sPR,NW
<i>Crupina vulgaris</i> ^{F,A}	bearded creeper, common crupina	Aggressively moving into wildlands, esp. grassland habitats	NCoR (Sonoma Co.),MP
<i>Halogeton glomeratus</i> ^A	halogeton	Noxious weed of Great Basin rangelands; report locations to CA Food & Ag; goal is exclusion from CA	GB
<i>Helichrysum petiolare</i>	licorice plant	North coastal scrub; one population on Mt. Tamalpais, w. Marin Co.	Not in Jepson
<i>Hydrilla verticillata</i> ^{F,A}	hydrilla	Noxious water weed; report locations to CA Food & Ag; eradication program in place; found in Clear Lake (Lake Co.) in 1994	NCoRI,n&cSNF,ScV,SCo,D
<i>Lythrum salicaria</i> ^B	purple loosestrife	Horticultural; noxious weed of wetlands, riparian areas	sNCo,NCoRO,nSNF,ScV, SnFrB,nwMP
<i>Ononis alopecuroides</i> ^Q	foxtail restharrow	Eradication efforts underway in San Luis Obispo Co.; to be looked for elsewhere in CA	CCo; not in Jepson
<i>Retama monosperma</i>	bridal broom	First noted at Fallbrook Naval Weapons Station, San Diego Co; could rival other invasive brooms	San Diego Co.; not in Jepson
<i>Salvinia molesta</i> ^F	giant waterfern	Ponds, lakes, reservoirs, canals	Napa, Sonoma cos., lower Colorado River; not in Jepson
<i>Sapium sebiferum</i>	Chinese tallow tree	Horticultural; riparian, wetland habitats, open areas and understory	ScV,SnFrB; not in Jepson
<i>Sesbania punicea</i>	scarlet wisteria tree	Horticultural; riparian areas; American River Parkway, Sacramento Co., Suisun Marsh, San Joaquin River Parkway	ScV,SnJV; not in Jepson
<i>Spartina anglica</i>	cord grass	Scattered in S.F. Bay	Not in Jepson
<i>Spartina densiflora</i>	dense-flowered cord grass	Scattered in S.F. Bay, Humboldt Bay salt marshes	CCo,NCo
<i>Spartina patens</i>	salt-meadow cord grass	One site in S.F. Bay, also Siuslaw Estuary, OR and Puget Sound, WA	CCo

Latin Name ¹	Common Name	Habitats of Concern and Other Comments	Distribution ²
<i>Acacia dealbata</i>	silver wattle	Aggressive in natural areas?	SnFRB, SCoRO, SCoRI, CCo
<i>Acacia decurrens</i>	green wattle	Sometimes confused with <i>A. dealbata</i> ; aggressive in natural areas?	Unknown
<i>Acacia melanoxylon</i>	blackwood acacia	Reported from S.F. Bay area, central coast, Santa Cruz Is.; spreads slowly; other areas?	SnFRB, SCoRO, SCo, CCo
<i>Aeschynomene rudis</i> ^B	rough jointvetch	Princeton area, Colusa Co.; pest of rice crops; potential threat to riparian, wetland habitats?	ScV
<i>Agrostis avenacea</i>	Pacific bentgrass	Invading vernal pools in San Diego area; attempts at manual eradication unsuccessful so far; problem in other areas?	sNCo, sNCoR, SNF, GV, CW, nSCo
<i>Aptenia cordifolia</i>	red apple	Habitats where invasive?	CCo, SCo, sChI
<i>Asphodelus fistulosus</i>	asphodel	Common in SCo highway rights-of-way, other disturbed sites; threats to wildlands?	sSnJV, SCo
<i>Carduus acanthoides</i> ^A	giant plumeless thistle	Threatens wildlands?	NCoRI, nSN, SnFrB, nSCoRO, MP
<i>Cistus ladanifer</i>	gum cistus	Horticultural; invades coastal sage scrub, chaparral; areas where problematic?	sCCo, SnGb
<i>Cordyline australis</i>	New Zealand cabbage	Infestation at Salt Point State Park; bird-dispersed; other problem areas?	Not in Jepson
<i>Cotoneaster</i> spp. (exc. <i>C. pannosus</i> , <i>C. lacteus</i>)	cotoneaster	Horticultural; bird-distributed; which species are problems in wildlands?	Unknown
<i>Cupressus macrocarpa</i>	Monterey cypress	Native only to Monterey Peninsula; planted and naturalized CCo, NCo; threat to wildlands?	CCo
<i>Descurainia sophia</i>	flixweed, tansy mustard	Entering Mojave wildlands through washes; threat to wildlands?	CA
<i>Dimorphotheca sinuata</i>	African daisy, Cape marigold	Horticultural; reported as invasive in w. Riverside Co., Ventura Co.; problem elsewhere?	SnJV, SCoRO, SCo, PR
<i>Echium candicans</i> , <i>E. pininana</i>	pride of Madeira, pride of Teneriffe	Horticultural; riparian, grassland, coastal scrub communities; spreads by seed	CCo, SnFrB, SCo, sNCo
<i>Ehrharta longiflora</i>	veldt grass	Reported from San Diego	Not in Jepson
<i>Erica lusitanica</i>	heath	Threat to wildlands?	NCo (Humboldt Co.)
<i>Euphorbia lathyris</i>	caper spurge, gopher plant	Invades coastal scrub, marshes, dunes; Sonoma, Marin cos.; threat to wildlands?	NCo, CCo, GV, SCo
<i>Gazania linearis</i>	gazania	Horticultural; invades grassland in S.F., coastal scrub?	CCo, SCo
<i>Glyceria declinata</i>		Although reported from Central Valley vernal pools, genetic research is needed to confirm identity; plants that have been called <i>G. declinata</i> key in Jepson to native <i>G. occidentalis</i>	Uncertain; not in Jepson
<i>Hedera canariensis</i>	Algerian ivy	Horticultural; invasive in riparian areas in SoCal?	Not in Jepson
<i>Hirschfeldia incana</i>	Mediterranean or short-pod mustard	Increasing in western, southern Mojave; threat to wildlands?	NCo, SNF, GV, CW, SCo, DMoj
<i>Hypericum canariense</i>	Canary Island hypericum	Reported in San Diego area, coastal sage scrub, grassland; threat to wildlands?	SCo
<i>Hypochaeris radicata</i>	rough cat's-ear	Widespread in coastal grasslands, wetlands; threat to wildlands?	NW, CaRF, nSNF, ScV, CW, SCo
<i>Isatis tinctoria</i> ^B	dyers' woad	Well-known invader in Utah; threat to wildlands?	KR, CaR, nSNH, MP
<i>Ligustrum lucidum</i>	glossy privet	Horticultural; spreading rapidly on Mendocino coast; problem in other areas?	NCo; not in Jepson
<i>Limonium ramosissimum</i> ssp. <i>provinciale</i>	sea lavender	Reported spreading in Carpinteria Salt Marsh; problem in other areas?	Not in Jepson

Latin Name ¹	Common Name	Habitats of Concern and Other Comments	Distribution ²
<i>Ludwigia uruguayensis</i> (= <i>L. hexapetala</i>)	water primrose	Invasive in aquatic habitats; non-native status questioned?	NCo,sNCoRO,CCo, SnFrB,SCo
<i>Malephora crocea</i>	ice plant	Invades margins of wetlands, bluffs along SCo	CCo,SCo,sChI
<i>Maytenus boaria</i>	mayten	Horticultural; scattered in riparian forests. ScV; east SnFrB	ScV,SnFrB
<i>Mesembryanthemum nodiflorum</i>	slender-leaved iceplant	Abundant on Channel Islands; invades wetlands; habitats where problematic?	SnFrB,SCo,ChI
<i>Nicotiana glauca</i>	tree tobacco	Disturbed places; not very competitive with natives in coastal scrub, chaparral; spreading along Putah Creek (Yolo Co.); problems elsewhere?	NCoRI,c&sSNF, GV,CW,SW,D
<i>Oxalis pes-caprae</i>	Bermuda buttercup	Invades disturbed sites; invasive in undisturbed habitats?	NCo,NCoRO,CCo, SnFrB,SCoRO,SCo
<i>Parentucellia viscosa</i>		Threat to NCo (Humboldt Co.) dune swales?	NCo,NCoRO,CCo,SCo
<i>Passiflora caerulea</i>		Horticultural; reported from SoCal; threat to wildlands?	SCo; not in Jepson
<i>Pennisetum clandestinum</i> ^{EC}	Kikuyu grass	Disturbed sites, roadsides; threat to wildlands?	NCo,CCo,SnFrB,SCo, Santa Cruz Is.
<i>Phyla nodiflora</i>	mat lippia	Most varieties in CA are native; taxonomy unclear; status of plants in vernal pools, wetlands?	NW(except KR,NCoRI I), GV,CCo,SnFrB,SCo, PR,DSon
<i>Pinus radiata</i> cultivars	Monterey pine	Cultivars invading native Monterey. Cambria forests, where spread of pine pitch canker is a concern	CCo
<i>Piptatherum miliaceum</i>	milfo grass	Aggressive in SoCal creeks, canyons; threats to wildlands?	NCo,GV,CW,SCo
<i>Pistacia chinensis</i>	Chinese pistache	Horticultural; invades riparian areas and woodlands in ScV	ScV
<i>Prunus cerasifera</i>	cherry plum	Oak woodland, riparian areas; esp. Marin, Sonoma cos.; bird-distributed; problems elsewhere?	SnFrB,CCo
<i>Pyracantha angustifolia</i>	pyracantha	Horticultural; spreads from seed in S.F. Bay area; bird-distributed; problem elsewhere?	sNCoRO,CCo,SnFrB,SCo
<i>Salsola soda</i>	glasswort	Threat to salt marshes?	nCCo,SnFrB
<i>Salsola tragus</i> ^C	Russian thistle, tumbleweed	Abundant in dry open areas in w. Mojave Desert, Great Basin; not limited to disturbed sites; threats?	CA
<i>Salvia aethiopis</i> ^B	Mediterranean sage	Creates monocultures in E. Oregon grasslands; threat to CA wildlands?	MP
<i>Stipa capensis</i>		Distribution and threats?	Not in Jepson
<i>Tamarix aphylla</i>	athel	Spreading in Salton Sea area; threats to wildlands?	nSnJV,nSCo,D
<i>Tanacetum vulgare</i>	common tansy	Jepson reports as uncommon, escape from cultivation in urban areas; problem in wildlands?	NCo,NCoRO,CalH, SCoRO
<i>Verbena bonariensis</i> , <i>V. litoralis</i>	tall vervain	Horticultural; invades riparian forests, wetlands; extensive along ScV riparian corridors; roadsides (Yuba Co.); elsewhere?	ScV,nSnJV,nSnFrB,CCo



Latin Name ¹	Common Name	Habitats of Concern and Other Comments	Distribution ²
<i>Aegilops triuncialis</i> ^b	barbed goatgrass	Serpentine soils, grasslands	sNCoR, CaRF, n&cSNF, ScV, nCW
<i>Avena barbata</i>	slender wild oat	Lower elev. in SoCal; coastal slopes, coastal sage scrub, disturbed sites	CA-FP, MP, DMoj
<i>Avena fatua</i>	wild oat	Lower elev. in SoCal; coastal slopes, coastal sage scrub on deeper soil, disturbed sites	CA-FP, MP, DMoj
<i>Brachypodium distachyon</i>	false brome	Expanding in SoCal; common in Orange Co.	sNCoR, sCaRF, SNF, GV, CW, SCo, sChI
<i>Bromus diandrus</i>	ripgut brome	Coastal dunes, coastal sage scrub, grasslands	CA
<i>Lolium multiflorum</i>	Italian ryegrass	Wetland areas, esp. vernal pools in San Diego Co.; common in disturbed sites	CA-FP
<i>Schismus arabicus</i>	Mediterranean grass	Threat to Mojave and Colorado desert shrublands?	SnJV, CW, sChI, D
<i>Schismus barbatus</i>	Mediterranean grass	Threat to Mojave and Colorado desert shrublands?	SnJV, SW, D

Considered, but not listed

Latin Name ¹	Common Name	Habitats of Concern and Other Comments
<i>Albizia lophantha</i>	plume acacia	Not invasive
<i>Anthoxanthum odoratum</i>	sweet vernal grass	Disturbed sites on coast; Marin, Sonoma, Mendocino cos.
<i>Carpobrotus chilensis</i>	sea fig	Native status in question; not a threat to wildlands
<i>Centranthus ruber</i>	red valerian	Horticultural; roadcuts in Marin Co.; not a threat to wildlands
<i>Convolvulus arvensis</i> ^c	field bindweed	Disturbed sites; ag lands
<i>Coprosma repens</i>	mirror plant	No evidence of wildland threat
<i>Crocosmia x crocosmiiflora</i>		Generally in disturbed coastal, urban areas, roadsides
<i>Digitalis purpurea</i>	foxglove	Horticultural; scattered in prairies, meadows, disturbed sites; not a major wildland threat
<i>Dipsacus sativus</i> , <i>D. fullonum</i>	wild teasel, Fuller's teasel	Roadsides, disturbed sites
<i>Fumaria officinalis</i> , <i>F. parviflora</i>	fumitory	S.F. Bay area, Monterey Bay salt marshes, sandy disturbed sites
<i>Medicago polymorpha</i>	California bur clover	Grasslands, moist sites; mainly restricted to disturbed sites
<i>Melilotus officinalis</i>	yellow sweet clover	Restricted to disturbed sites in CA
<i>Nerium oleander</i>	oleander	Horticultural; not invasive, although reported from riparian areas in Central Valley, San Bernardino Mtns.
<i>Picris echioides</i>	bristly ox-tongue	Disturbed areas
<i>Silybum marianum</i>	milk thistle	Disturbed areas, especially overgrazed moist pasturelands; may interfere with restoration
<i>Xanthium spinosum</i>	spiny cocklebur	Identified as native in <i>The Jepson Manual</i> (Hickman, 1993) and <i>A California Flora</i> (Munz and Keck, 1968); restricted to disturbed areas
<i>Zantedeschia aethiopica</i>	calla lily	Horticultural; mainly a garden escape in wet coastal areas
<i>Zoysia cultivars</i>	Amazon and others	Horticultural; no evidence of wildland threat